

“ Some surprising thoughts and realizations from a would be research scientist about employment in the ‘Real World’”

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# Acknowledgements

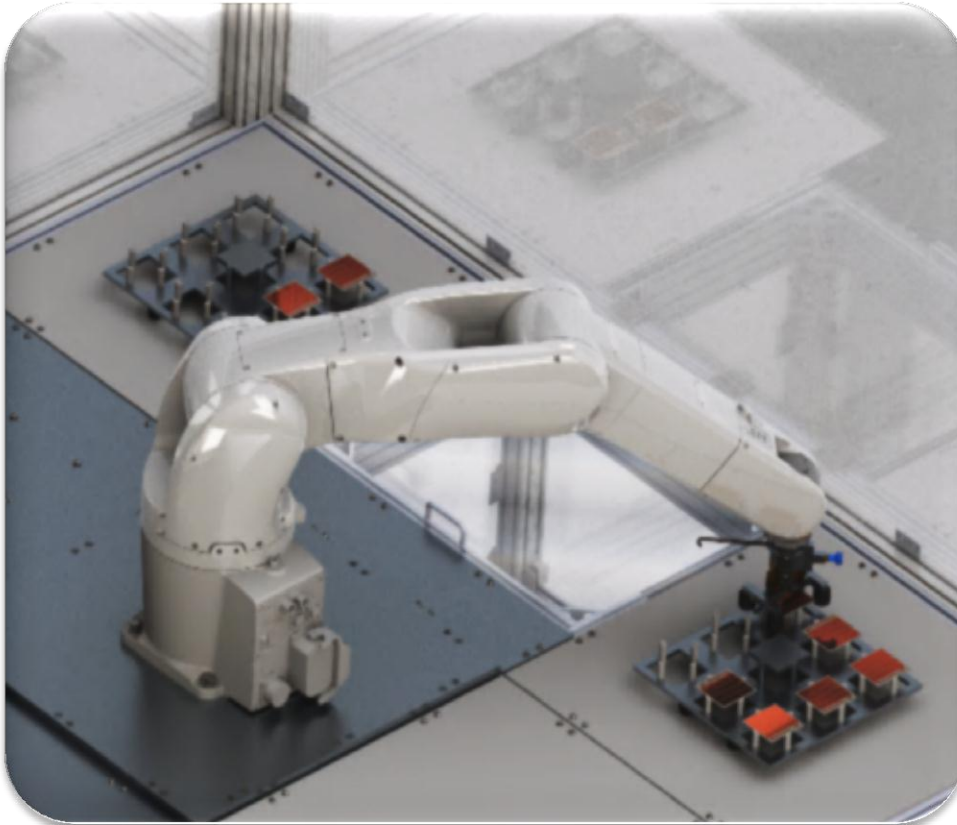
- Management, Staff, and Investors of Carver Scientific Inc. for their unwavering diligence and support during the early stage of my employment
- Dr. David Carver, Dr. Mark Jarrell and Dr. Juana Moreno

# Facilities



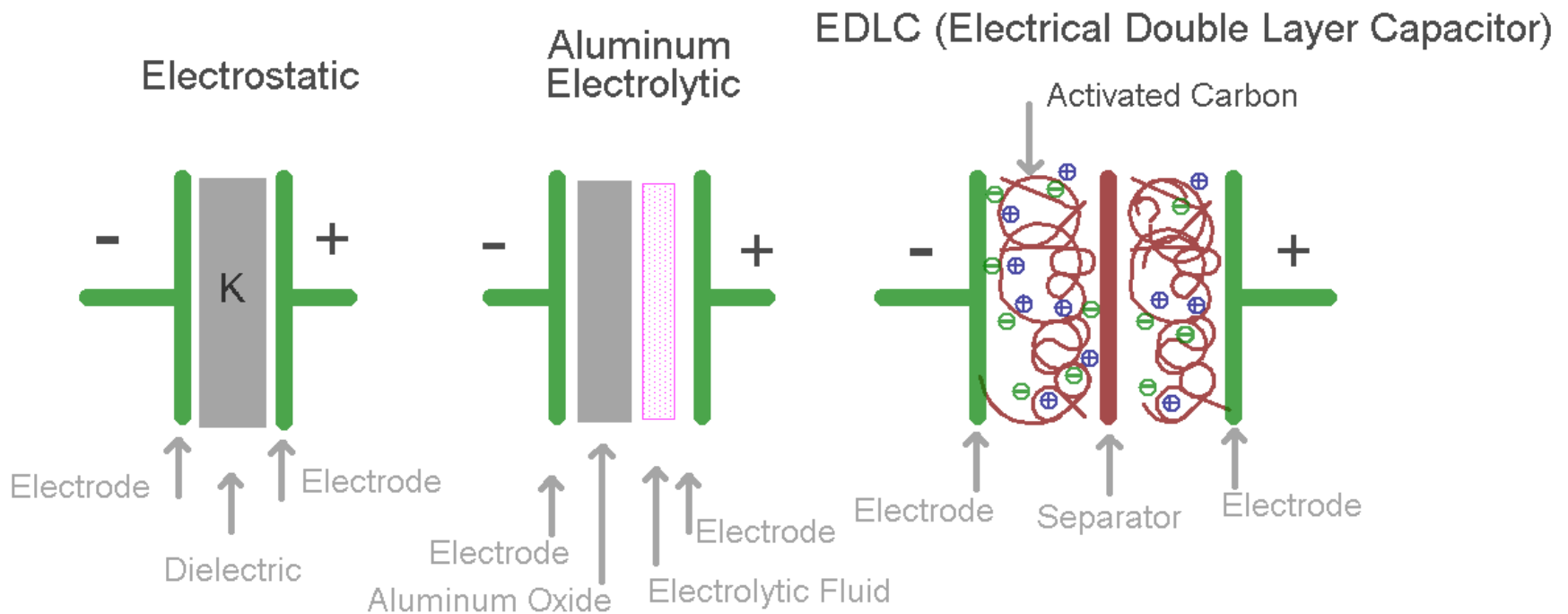
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# Rapid Prototyping



- Allows rapid creation, reproducibility, and testing of thousands of variations of samples quickly and efficiently
- Data Reveals Optimal thickness & makeup of dielectric & conduction layers

# Types of Capacitors



# Finding a Job

1. Use all resources available
2. Contacts are like gold
3. YOU find the job, not the other way around
4. Email, texts and phone calls are essential, but never underestimate the value of an in-person contact
  - a. Try to be as personable as possible
  - b. You are selling yourself, not the science, your papers, professors, schools or anything else.
  - c. There are positives about you that will not show up on your resume

# Finding a Job (II)

5. A little hunger and desperation are not bad things when looking for work.
  - a. You want to look with a purpose, not just check off the things you should do.
  - b. You are working for yourself while you are unemployed. So get to work, find a job!

It's not about the Physics, it's about the skills

- The one thing I learned from looking in the want-ads was that no one wanted a Physicist
- The HR department doesn't care about physics, they care about the skills you bring to the company (What can you do?)
- Just as a reminder, you have to know some Physics, Chemistry, Math, Computer Science and Psychology too!



What are the skill sets “needful”  
for the aspiring Scientist?

I cannot think of anything I learned  
that I did not need or use in my life.

Yeah, OK, that’s great. What is the real  
deal?

## **Generic Skills: (not the obvious for your field)**

- 1) Fluidics (Plumbing)
- 2) Electronics
- 3) Digital interfaces and Software
- 4) Mechanical (see 1)

- 5) People Skills (social)
- 6) Recognition of cultural differences

Work on your weaknesses, not your strengths, when you are in school, then work to your strengths afterwards.

# Advantages of being in Physics

- Physics encompasses more fields of study than most other sciences
  - As such you are a “jack of all trades”
  - It’s not very difficult to understand some basic Chemistry, Engineering etc.
  - Computational Physicist have an advantage over pure computer scientists because they can more ***easily relate the abstract world to the real world and vice-versa***
  - You will really be surprised at how differently other people look at things

# Working

- You are there to add value to the company
- You are there to do a job, so do it (with enthusiasm)
- If you can use your creativity, or intellect to make things easier or more efficient, THAT IS GREAT!
- *<I have been lucky. I have enjoyed every job I have had. But if you don't like it, fake it.>*
- It is important that you realize you may have to work a little extra or do more to “add value” to yourself and the company

# Quick notes

- Be willing to learn new things and step beyond what you expected be doing
- Take an interest in the jobs of your co-workers (you may have to replace them)
- Be willing to push beyond your boundaries (within legal, moral and ethical limits. Dignity can be optional, integrity is mandatory!)
- Money matters!

# More Quick Notes

- Patents are like papers, a lot of work, except lawyers and courts are involved
- Deadlines are very important. When you miss deadlines, you are screwing yourself and your co-workers. They WILL remember.
- Don't be afraid to go the extra mile, the boss will remember
- Try to have fun, life is too long not to

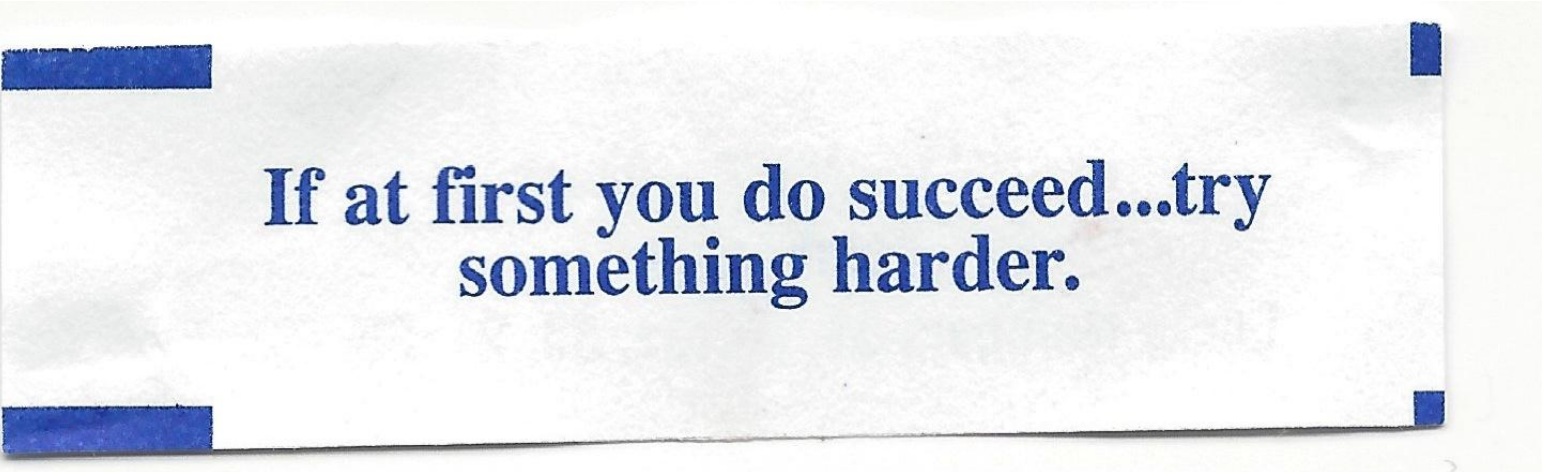
# Working







Company Motto:



**If at first you do succeed...try  
something harder.**

Sean's Motto:

If at first you succeed...check it and make  
sure. Then check it again!